

**College of Agriculture & Life Sciences  
Proposed Catalog Changes  
Effective Summer 2020**

**Department of Agricultural and Extension Education**

1. Reactivate the following course:

**AGED 252 Developing Community and Collegiate Organizations**

**3 credits**

Assisting community, collegiate, or social organization members, officers, or committee chairs to better serve the organization and to acquire practical organizational and management skills that will help them throughout their academic and professional careers. Basic knowledge and skills related to parliamentary procedure and the orderly conduct of meetings will also be covered. (Alt/odd yrs)

**Rationale:** This course was listed in the 2017-2018 course catalog. It was mistakenly put on the Dormant List. Dr. Connors last taught this course in the spring of 2017. This is not a new course. It should have never been put on the Dormant List. It will either be taught in spring 2020 or during the 2020-2021 academic year.

2. Drop the following courses:

**AGED 140 Introduction to Organizational and Personal Leadership Development**

**1 credit**

This course is designed to introduce the student to important concepts in organizational and personal leadership development. Topics will include organizational leadership, citizenship, and cooperation, personal development, employee/employer relations, and group and individual interpersonal communications skills.

**Rationale:** This was a dual credit course that has not been taught in over 5 years. There is no plans for requiring it in the Ag Ed major or using it as a dual credit course in the future.

**AGED 158 Introduction to Supervised Agricultural Experience Programs**

**1 credit**

This course is designed to introduce the student to important concepts in conducting and organizing supervised agricultural experience projects related to secondary agricultural education classroom and local FFA chapter. Topics will include project planning, goal setting, budgeting, record keeping, basic technical writing, project/program evaluation, employability skills, citizenship, employee/employer relations, and group and individual interpersonal communication skills. (Spring only)

**Rationale:** This was a dual credit course that has not been taught in over 5 years. There is no plans for requiring it in the Ag Ed major or using it as a dual credit course in the future.

**AGED 159 Introduction to the FFA Organization****1-2 credits**

This course is designed to introduce the student to important concepts in conducting, organizing, and competing in activities inherent in the Idaho and National FFA Organizations as an outgrowth of the secondary agricultural education classroom instruction and coupled with a successful supervised agricultural experience program. Topics will include parliamentary procedure, FFA History and activities, public speaking and communications, project planning, goal setting, budgeting, record keeping, basic technical writing, project/program evaluation, employability skills, citizenship, employee/employer relations, and group and individual interpersonal communication skills. (Spring only)

**Rationale:** This was a dual credit course that has not been taught in over 5 years. There is no plans for requiring it in the Ag Ed major or using it as a dual credit course in the future.

**AGED 160 Survey of the Expectations and Responsibilities of Teaching High School Agriculture****1 credit, max 2**

This course is designed for high school students interested in pursuing a career in agricultural education and will serve as a bridge class between high school and collegiate level teacher education courses. The course will include an exploration of the professional qualities and expectations of the teacher/educator. Roles, responsibilities and challenges in the field of education, leadership, and communication will be examined.

**Rationale:** This was a dual credit course that has not been taught in over 5 years. There is no plans for requiring it in the Ag Ed major or using it as a dual credit course in the future.

## 3. Change the following courses:

**AGED 471 Senior Capstone in Agricultural Education****1 2 credits**

*Gen Ed: Senior Experience*

This course serves as the senior capstone course for the Bachelors of Science degree in Agricultural Education. The course meetings will include 2 mandatory seminars (2days each), ~~a meeting during the Idaho FFA State Leadership Conference in April~~, a final presentation, and a senior capstone debriefing meeting at the end of the student-teaching field-experience.

**Prereq:** AGED 470

**Coreq:** AGED 460 and AGED 461

**Rationale:** Increasing the number of credits from 1 to 2 appropriately reflects the student effort hours required to present their comprehensive portfolio as well as the time required for the seminars.

## 4. Make the following curriculum changes:

## Agricultural and Life Sciences Core

AGEC 278	Farm and Agribusiness Management	4
AGED 406	Exploring International Agriculture	3
<u>Or AGED 407</u>		
<del>AGED 451</del>	<del>Communicating in Agriculture</del>	<del>3</del>
<del>BIOL 115</del>	<del>Cells &amp; the Evolution of Life</del>	<del>3</del>
<del>BIOL 115L</del>	<del>Cells and the Evolution of Life Laboratory</del>	<del>1</del>
<del>COMM 101</del>	<del>Fundamentals of Oral Communication</del>	<del>2</del>
ECON 202	Principles of Microeconomics	3
<del>SOIL 205</del>	<del>The Soil Ecosystem</del>	<del>3</del>
<del>SOIL 206</del>	<del>The Soil Ecosystem Lab</del>	<del>1</del>
Select one of the following:		4
<del>-CHEM 101</del>	<del>Introduction to Chemistry</del>	
<del>— &amp; 101L</del>	<del>and Introduction to Chemistry Laboratory</del>	
<del>-CHEM 111</del>	<del>General Chemistry I</del>	
<del>— &amp; 111L</del>	<del>and General Chemistry I Laboratory</del>	
Select one of the following:		3-4
<del>-MATH 143</del>	<del>College Algebra</del>	
<del>-MATH 160</del>	<del>Survey of Calculus</del>	
<del>-MATH 170</del>	<del>Calculus I</del>	
Select one of the following:		3
<del>-ENGL 207</del>	<del>Persuasive Writing</del>	
<del>-ENGL 313</del>	<del>Business Writing</del>	
<del>-ENGL 316</del>	<del>Environmental Writing</del>	
<del>-ENGL 317</del>	<del>Technical Writing</del>	
<del>-ENGL 318</del>	<del>Science Writing</del>	
<b>Total Hours</b>		<b><del>33-34</del> 13</b>

**Rationale:** During the trifurcation the BS in Agricultural and Life Sciences was established. This proposed change accomplishes a modification to the BSALS that provides flexibility to the majors while maintaining the BSALS.

## Agricultural Science, Communication and Leadership (B.S.Ag.L.S.)

Required course work includes the university requirements (see [regulation J-3](#)) and:

Agricultural and Life Sciences Core		<del>33-34</del> <u>13</u>
<b>Agricultural Science, Communication and Leadership Courses</b>		
<del>ACCT 201</del>	<del>Introduction to Financial Accounting</del>	<del>3</del>
<del>AGEC 289</del>	<del>Agricultural Markets and Prices</del>	<del>3</del>
AGED 180	Introduction to Agricultural Education	1
AGED 251	Principles of Agricultural Communications and Leadership	3
AGED 450	Leading People and Teams	3
AGED 498	Internship	5-10
<a href="#">AGED 481</a>	<a href="#">Advanced Ag Comm and Leadership</a>	<u>3</u>
<a href="#">CHEM 101</a>	<a href="#">Introduction to Chemistry</a>	<u>3</u>
<a href="#">OR CHEM 111</a>	<a href="#">Principles of Chemistry I</a>	
<a href="#">CHEM 101L</a>	<a href="#">Introduction to Chemistry Laboratory</a>	<u>1</u>
<a href="#">OR CHEM 111L</a>	<a href="#">Principles of Chemistry I Laboratory</a>	
<a href="#">BIOL 114</a>	<a href="#">Organisms &amp; Environment</a>	<u>4</u>
<a href="#">OR BIOL 115</a>	<a href="#">Cells &amp; the Evolution of Life</a>	
<a href="#">&amp; 115L</a>	<a href="#">Cells &amp; the Evolution of Life Laboratory</a>	
Select one of the following:		<u>9</u>
<a href="#">MATH 130</a>	<a href="#">Finite Mathematics</a>	
<a href="#">MATH 137</a>	<a href="#">Algebra with Applications</a>	
<a href="#">MATH 143</a>	<a href="#">College Algebra</a>	
Select two of the following:		<u>6</u>
<a href="#">ENGL 202</a>	<a href="#">Professional Writing</a>	
<a href="#">ENGL 207</a>	<a href="#">Persuasive Writing</a>	
<a href="#">ENGL 313</a>	<a href="#">Business Writing</a>	
<a href="#">ENGL 316</a>	<a href="#">Environmental Writing</a>	
<a href="#">ENGL 317</a>	<a href="#">Technical Writing</a>	
<a href="#">ENGL 318</a>	<a href="#">Science Writing</a>	
<a href="#">JAMM 121</a>	<a href="#">Media Writing</a>	
<a href="#">JAMM 225</a>	<a href="#">Reporting I</a>	
<a href="#">JAMM 350</a>	<a href="#">Public Relations Writing and Production</a>	
<b>Foundational Ag Communications &amp; Leadership Courses</b>		
Select 9 credits of the following:		<u>9</u>
<a href="#">AGED 252</a>	<a href="#">Developing Community and Collegiate Orgs</a>	
<a href="#">AGED 350</a>	<a href="#">Leadership Event Coordination (3 credit max)</a>	
<a href="#">AGED 359</a>	<a href="#">Developing 4H Youth Programs</a>	
<a href="#">AGED 448</a>	<a href="#">Foundations of Extension Education</a>	

<a href="#">AGED 301</a>	<a href="#">Undergraduate Research (3 credits max)</a>	
<a href="#">CLDR 360</a>	<a href="#">Leadership and Community Dynamics</a>	
<a href="#">CLDR 480</a>	<a href="#">Change and Power in a Global Society</a>	
<b>Upper-Division Agricultural Economics Elective</b>		<b>3</b>
<b>Subject Area Electives</b>		<b>20</b>
<b>Select one of the following:</b>		
10 credits in two of the following subject areas:		
— <a href="#">Agricultural System Management</a>		
— <a href="#">Animal and Veterinary Science</a>		
— <a href="#">Entomology</a>		
— <a href="#">Family and Consumer Science</a>		
— <a href="#">Food Science</a>		
— <a href="#">Soils</a>		
— <a href="#">Plant Science/Rangeland Ecology Management</a>		
OR 15 credits from one of the following subject areas AND 5 credits from a Foreign Language:		
— <a href="#">Agricultural System Management</a>		
— <a href="#">Animal and Veterinary Science</a>		
— <a href="#">Entomology</a>		
— <a href="#">Family and Consumer Science</a>		
— <a href="#">Food Science</a>		
— <a href="#">Plant Science/Rangeland Ecology Management</a>		
— <a href="#">Soils</a>		
<b>Subject Area Electives</b>		<b>24</b>
Select 24 credits from 3 of the following of the following subject areas. A minimum of 12 credits must be upper-division (300 or 400). At least two areas must be from the College of Agricultural and Life Sciences (CALs). One area can be from the College of Natural Resources (CNR).		
<b><a href="#">CALs Subject Matter Areas</a></b>		
<a href="#">Agricultural Economics</a>		
<a href="#">Agricultural Systems Management</a>		
<a href="#">Animal and Veterinary Science</a>		
<a href="#">Entomology</a>		
<a href="#">Family and Consumer Science</a>		
<a href="#">Food Science</a>		
<a href="#">Soils</a>		
<a href="#">Plant Science/Rangeland Ecology Management</a>		
<b><a href="#">CNR Subject Matter Areas</a></b>		
<a href="#">Forest Resources</a>		
<a href="#">Natural Resources/Natural Resources and Society</a>		
<a href="#">Wildlife Resources</a>		
<b>Communication Electives</b>		<b>12</b>

Select 12 credits of communication electives including one upper division course:

—COMM 233	Interpersonal Communication
—COMM 332	Communication and the Small Group
—COMM 410	Conflict Management
—COMM 431	Applied Business and Professional Communication
—EDCI 410	Technology, Teaching and Learning
—JAMM 100	Media and Society
—JAMM 121	Media Writing
—JAMM 252	Introduction to Integrated Media Campaigns

### **Leadership Electives**

**9**

Select 9 credits of leadership electives:

—AGED 359	Developing 4-H Youth Programs
—AGED 448	Foundations of Extension Education
—MHR 311	Introduction to Management
—MHR 413	Organizational Behavior
—MHR 418	Managing Organization Design and Leading Changes
—NRS 311	Public Involvement in Natural Resource Management
—MS 101	Intro to the Army & Critical Thinking
—MS 102	Intro to the Profession of Arms
—MS 201	Foundations of Leadership I
—MS 202	Foundations of Leadership II

### **Leadership and Communication Electives**

**21**

Select 21 credits from the list of courses:

Any COMM Prefix

Any JAMM Prefix

<u>AGED 350</u>	<u>Leadership Event Coordination</u>
<u>AGED 252</u>	<u>Developing Community and Collegiate Orgs</u>
<u>AGED 359</u>	<u>Developing 4-H Youth Programs</u>
<u>AGED 448</u>	<u>Foundations of Extension Education</u>
<u>AGED 407</u>	<u>Global Ag &amp; Life Science Systems</u>
<u>AGED 301</u>	<u>Undergraduate Research (3 credit max)</u>
<u>CLDR 360</u>	<u>Leadership and Community Dynamics</u>
<u>CLDR 480</u>	<u>Change and Power in a Global Society</u>
<u>MHR 311</u>	<u>Introduction to Management</u>
<u>MHR 413</u>	<u>Organizational Behavior</u>
<u>MHR 418</u>	<u>Managing Organization Design &amp; Leading Changes</u>
<u>NRS 311</u>	<u>Public Involvement in Natural Resource Mgmt</u>
<u>AGLS 495</u>	<u>CALS Ambassadors (3 credit max)</u>
<u>AGLS 494</u>	<u>CALS Peer Leaders (3 credit max)</u>
<u>EDCI 410</u>	<u>Technology, Teaching and Learning</u>
<u>ORGS 110</u>	<u>Governance in Small Organizations</u>

<a href="#">ORGS 305</a>	<a href="#">Nonprofit Organizations</a>
<a href="#">ORGS 320</a>	<a href="#">Budgeting for Small Organizations</a>
<a href="#">ORGS 312</a>	<a href="#">Workplace Motivation</a>
<a href="#">ORGS 322</a>	<a href="#">Workplace Soft Skills</a>
<a href="#">ORGS 323</a>	<a href="#">Messaging for Small Organizations</a>
<a href="#">ORGS 407</a>	<a href="#">Advanced Nonprofit Organizations</a>
<a href="#">ORGS 435</a>	<a href="#">Personnel</a>
<a href="#">ORGS 441</a>	<a href="#">Human Relations in the Workplace</a>
<a href="#">ORGS 450</a>	<a href="#">Training and Performance Support</a>

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**Total Hours**

~~95-101~~[105-110](#)

**Courses to total 120 credits for this degree**

**Distance Availability:** Yes

**Geographic Availability:** Moscow, Twin Falls

**Rationale:** The reconfiguration of the ASCL major is to align more closely with industry needs. Students in the ASCL major have the option of selecting Subject Areas, where they take 10 Credits in two subject areas OR 15 credits in a subject area and a foreign language. To provide our students with a wider-breadth of knowledge that is more applicable to industry needs the change allows for students to have experience in an additional field and incorporates Agricultural Economics, Natural Resources, Wildlife Resources, and Forest Resources as options for electives.

The proposed changes allow students to select 9 credits from courses specific to the agricultural industry. Some of these courses are new and/or have been updated recently.

The proposed changes also allow students to choose from a mixture of leadership and communication-based courses to allow them to tailor their educational experience to their specific career goals. It also provides more flexibility for at distance students.

There is no additional workload for the department.

## Agricultural Communications and Leadership Minor

AGED 251	Principles of Agricultural Communications and Leadership	3
<a href="#">AGED 450</a>	<a href="#">Leading People and Teams</a>	<u>3</u>
<a href="#">AGED 451</a>	<a href="#">Communicating in Agriculture</a>	<u>3</u>
<a href="#">AGED 481</a>	<a href="#">Advanced Ag Communications and Leadership</a>	<u>3</u>
<i>Additional Elective Courses</i>		<u>8</u>
<a href="#">AGED 140</a>	<a href="#">Intro to Org &amp; Personal Leadership Development</a>	
<a href="#">AGED 252</a>	<a href="#">Developing Community &amp; Collegiate Orgs</a>	
<a href="#">AGED 301</a>	Undergraduate Research <u>(3 credits max)</u>	<del>1-3</del>
<a href="#">AGED 350</a>	Leadership Event Coordination	<del>1</del>
<del>AGED 450</del>	<del>Leading People and Teams</del>	<del>3</del>
<del>AGED 451</del>	<del>Communicating in Agriculture</del>	<del>3</del>
<del>AGED 406</del>	<del>Exploring International Agriculture</del>	<del>3</del>
<del>AGED 407</del>	<del>Global Agricultural &amp; Life Sciences Systems</del>	<del>3</del>
<a href="#">AGED 498</a>	Internship (5 cr max)	<del>1-10</del>
<a href="#">CLDR 360</a>	<a href="#">Community &amp; Leadership Dynamics</a>	
<a href="#">CLDR 480</a>	<a href="#">Change &amp; Power in a Global Society</a>	
<a href="#">AGLS 494</a>	<a href="#">CALS Peer Leaders (2 credit max)</a>	
<a href="#">AGLS 495</a>	<a href="#">CALS Ambassadors (2 credit max)</a>	
<b>Total Hours</b>		<del>18-29</del> <u>20</u>

### Courses to total 20 credits for this minor

**Distance Availability:** Yes – over 50%, not available 100% online.

**Geographic Availability:** Moscow, Twin Falls-CSI

**Rationale:** The proposed changes are based on new courses being offered in the department that align with the minor focus. There will be minimal added workload as most of these courses are already being taught used in the existing degree programs.

Learning outcomes will continue to be assessed using the following:

- Class projects and assignments
- Student involvement in leadership/communications outside the classroom
- Exit Interviews
- Follow-up studies

## Department of Agricultural Economics and Rural Sociology

### 1. Change the following courses:

#### **AGEC 333 Introduction to Sales**

##### **3 credits**

Introduction to the economic and consumer behavior theory of the sales industry. Fundamentals of professional business-to-business selling, business-to-consumer selling, sales ethics, and career assessment. [Evening practicum required and a day-long job shadowing required.](#) (Spring only)

**Rationale:** The description is being changed to make students aware of requirements outside of class time.

#### **AGEC 433 Advanced Sales**

##### **3 credits**

Building on principles of professional sales and sales management, students will learn additional processes, procedures and practices of sales professionals. Students will apply the old and new concepts when selling a product to be determined to actual customers. [Semester-long project requires working with sales professionals or in professional sales capacity.](#)

**Prereq:** AGEC 333.

**Rationale:** The description is being changed to make students aware of requirements outside of class time.

### 2. Make the following curriculum changes:

#### **Agricultural Economics (B.S.Ag.Econ.)**

The agricultural economics area has two programs designed to prepare students for careers in the agricultural economics profession. The agribusiness major provides students with training related to management, finance, and marketing in the agribusiness sector. The agricultural economics major provides students with the theory behind decisions concerning agricultural production, marketing, resource use, pricing, and policy. Both of these majors prepare students to pursue advanced degrees if they choose.

Required course work includes the university requirements (see regulation J-3) and:

ACCT 201	Introduction to Financial Accounting	3
ACCT 202	Introduction to Managerial Accounting	3
AGEC 101	The Business of Agriculture	1
AGEC 278	Farm and Agribusiness Management	4
AGEC 289	Agricultural Markets and Prices	3
AGEC 301	Managerial Economics: Production	3
AGEC 302	Managerial Economics: Consumption & Markets	3
AGEC 356	Agricultural and Rural Policy	3
AGEC 478	Advanced Agribusiness Management	3
AGEC 481	Agricultural Markets in a Global Economy	3

COMM 101	Fundamentals of Oral Communication	2
ECON 201	Principles of Macroeconomics	3
ECON 202	Principles of Microeconomics	3
STAT 251	Statistical Methods	3
Select one of the following:		4-5
BIOL 102 & 102L	Biology and Society and Biology and Society Lab	
BIOL 115 & 115L	Cells & the Evolution of Life and Cells and the Evolution of Life Laboratory	
<del>BIOL 250</del>	<del>General Microbiology</del>	
<del>&amp; BIOL 255</del>	<del>and General Microbiology Lab</del>	
<a href="#">EPPN 154</a>	<a href="#">Microbiology and the World Around Us</a>	
<a href="#">&amp; EPPN 155</a>	<a href="#">And Microbiology &amp; the World Around Us Laboratory</a>	
<b>Emphasis</b>		
Select one of the following Emphases:		42-43
Applied Economics		
Agribusiness		
<b>Total Hours</b>		<b>86-88</b>

**A. Applied Economics Emphasis**

AGEC 451	Applied Environmental and Natural Resource Economics	3
ECON 351	Intermediate Macroeconomic Analysis	3
ECON 352	Intermediate Microeconomic Analysis	3
ECON 453	Econometrics	3
ENGL 317	Technical Writing	3
MATH 170	Calculus I	4
<b>Economics/Math/Statistics Electives</b>		
Select three courses from the following:		9
ECON 343	Money and Banking	
ECON 407	Public Finance	
ECON 441	Labor Economics	
ECON 446	International Economics	
ECON 447	International Development Economics	
MATH 330	Linear Algebra	
STAT 431	Statistical Analysis	
or other 300 or 400 level Economics Courses by permission		
<b>Agricultural Economics Electives</b>		
Select 3 credits of Agriculture Economics Electives		3
<b>Technical Agriculture Electives</b>		
Select 12 credits of Technical Agriculture Electives		12
<b>Total Hours</b>		<b>43</b>

### Courses to total 120 credits for this degree

#### B. Agribusiness Emphasis

ACCT 482	Enterprise Accounting	3
AGEC 451 or AGEC 477	Applied Environmental and Natural Resource Economics Law, Ethics and the Environment	3
ENGL 313 or ENGL 317	Business Writing Technical Writing	3
Select two of the following:		6
AGEC 333	Introduction to Sales	
BLAW 265	Legal Environment of Business	
MKTG 321	Marketing	
MHR 413	Organizational Behavior	
Select one of the following:		3-4
MATH 143	College Algebra	
MATH 160	Survey of Calculus	
MATH 170	Calculus I	
<b>Business or Economics Electives</b>		
Select 12 credits of Agricultural Economics, Economics, Accounting, or Business Electives:		12
<b>Technical Agriculture Electives</b>		
Select 12 credits of Technical Agriculture Electives:		12
<b>Total Hours</b>		<b>42-43</b>

### Courses to total 120 credits for this degree

**Rationale:** The changes are being made to be update the curriculum to changes that have taken place with these classes. BIOL 250 (and by association 255) requires BIOL 115 and 115L. We only require one level of biology. The EPPN 154 & 155 is replacing BIOL 250/255 because they do not have additional prerequisites.

#### Department of Entomology, Plant Pathology and Nematology

1. Add the following courses:

##### **PLP 512 Viruses and Virus Diseases of Plants Laboratory**

##### **1 credit**

As a companion course to PLP 511 Viruses and Virus Diseases of Plants, this laboratory course increases student knowledge about plant diseases caused by viruses. This laboratory course provides hands-on training in the identification and classification of viruses that infect plants and cause plant disease. One 2 hr 20 min lab per week (Spring, odd years only).

**Prereq:** PLSC 102; EPPN 154 and EPPN 155 or BIOL 250 and 255; or permission.

**Coreq:** PLP 511

**Rationale:** The original documentation put forward PLP 511/512 on one document. Only one course, PLP 511 was established, but the intent was for a separate lecture and laboratory course. This adds a course document which is being filed to fix this oversight.

2. Change the following course:

**PLP 511 Viruses and Virus Diseases of Plants**

**4 3 credits**

Nature of plant viruses, vector-virus relationships and virus diseases of plants. Includes laboratory section. [Offered spring of odd years only.](#)

**Prereq:** [PLSC 102](#); ~~BIOL EPPN~~ 154 and ~~BIOL EPPN~~ 155 or BIOL 250 and 255; ~~and PLSC 102~~ or permission.

**Available via Distance:** Yes

**Geographical Area:** Moscow, Distance Online

**Rationale:** Introductory microbiology, BIOL 154 and 155 are no longer being offered and Microbiology and the World Around Us, EPPN 154 and 155 are the most similar replacement for the prerequisites.

The original documentation put forward PLP 511/512 on one document. Only one course, PLP 511 was established, but the intent was for a separate lecture and laboratory course. This change of course document is being filed to fix this oversight.

The credits for lecture should be 3 not 4.

3. Reactivate and change the following courses:

**ENT 447 ~~Fundamentals of Biological Control~~ [in Plant Pest Management Systems](#)**

**3 credits**

Joint-listed with ENT 547

~~Intro to history and development of biological control and biological and ecological factors involved; emphasis on entomophagous and phytophagous insects. For graduate credit, students present a paper or "grant proposal" for critique. Recommended Preparation: general ecology. This is a cooperative course available to WSU degree-seeking students. (Alt/yrs) This course teaches content within the fields of agro-ecology, natural resource conservation and especially integrated pest management. Biological control and classical biological control of exotic invasive plants, arthropod crop and forest pests, and crop diseases are a major subdiscipline of integrated pest management. Biological control can reduce and sometimes eliminate the need for pesticides to manage pests and/or invasive species.~~

[The course will introduce students to i\) the underlying principles of biological control, predator prey interactions and invasion ecology; Students will learn about ii\) the history of the discipline including many environmentally disastrous examples of 'biological control' from the 18th and 19th century prior to the use of environmental assessments, iii\) about methods to develop and assess biological control organism across taxa; and iv\) environmental risk assessment procedures and introduction policies and guidelines of different countries. Examples of biological control across taxa will be used](#)

[throughout the course to illustrate the conservation, social and economic benefits of the discipline. Course will meet twice weekly for 1 hour and 15 min sessions.](#)

**Distance Delivery:** Yes

**Geographical Area:** Moscow, Online

**Rationale:** We intend to revive a graduate level course that was taught in the former PSES department frequently between 1983 – 1999 and infrequently thereafter until 2007. The course addresses all aspects of classical biological control of plants, arthropods and pathogens in pest management system. With the current increase of faculty with expertise in subject area and our growing number of graduate students conducting research in this area, it may be appropriate to also provide educational training on the topic.

The course was well participated and successful during the time it was offered but has fallen dormant. We want to revive the course and intend to first teach the revived course as a directed study, likely in spring 2020.

### **ENT 547 ~~Fundamentals of Biological Control~~ [in Plant Pest Management Systems](#)**

**3 credits**

Joint-listed with ENT 447

~~Intro to history and development of biological control and biological and ecological factors involved; emphasis on entomophagous and phytophagous insects. For graduate credit, students present a paper or "grant proposal" for critique. Recommended Preparation: general ecology. This is a cooperative course available to WSU degree-seeking students. (Alt/yrs)~~ [This course teaches content within the fields of agro-ecology, natural resource conservation and especially integrated pest management. Biological control and classical biological control of exotic invasive plants, arthropod crop and forest pests, and crop diseases are a major subdiscipline of integrated pest management. Biological control can reduce and sometimes eliminate the need for pesticides to manage pests and/or invasive species.](#)

[The course will introduce students to i\) the underlying principles of biological control, predator prey interactions and invasion ecology; Students will learn about ii\) the history of the discipline including many environmentally disastrous examples of 'biological control' from the 18th and 19th century prior to the use of environmental assessments, iii\) about methods to develop and assess biological control organism across taxa; and iv\) environmental risk assessment procedures and introduction policies and guidelines of different countries. Examples of biological control across taxa will be used throughout the course to illustrate the conservation, social and economic benefits of the discipline. Course will meet twice weekly for 1 hour and 15 min sessions.](#)

**Distance Delivery:** Yes

**Geographical Area:** Moscow, Online

**Rationale:** We intend to revive a graduate level course that was taught in the former PSES department frequently between 1983 – 1999 and infrequently thereafter until 2007. The course addresses all aspects of classical biological control of plants, arthropods and pathogens in pest management system. With the current increase of faculty with expertise in subject area and our growing number of graduate students conducting research in this area, it may be appropriate to also provide educational training on the topic.

The course was well participated and successful during the time it was offered but has fallen dormant. We want to revive the course and intend to first teach the revived course as a directed study, likely in spring 2020.

4. Make the following curricular changes:

### Entomology (B.S.Ag.L.S.)

Required course work includes the university requirements (see regulation J-3) and:

Agricultural and Life Sciences Core		<del>33-34</del> <u>13</u>
<b>Entomology Courses</b>		
BIOL 114	Organisms and Environments	4
<a href="#">BIOL 115</a>	<a href="#">Cells and the Evolution of Life</a>	<u>3</u>
<a href="#">BIOL 115L</a>	<a href="#">Cells and the Evolution of Life Laboratory</a>	<u>1</u>
BIOL 213	Principles of Biological Structure and Function	4
or PLSC 205	General Botany	
BIOL 312	Molecular and Cellular Biology	3
BIOL 313	Molecular and Cellular Laboratory	1
BIOL 314	Ecology and Population Biology	4
<a href="#">CHEM 111</a>	<a href="#">General Chemistry I</a>	<u>3</u>
<a href="#">CHEM 111L</a>	<a href="#">General Chemistry I Laboratory</a>	<u>1</u>
CHEM 112	General Chemistry II	3
CHEM 112L	General Chemistry II Laboratory	2
<a href="#">COMM 101</a>	<a href="#">Fundamentals of Oral Communication</a>	<u>2</u>
CHEM 275	Carbon Compounds	3
or CHEM 277	Organic Chemistry I	
ENT 322	General and Applied Entomology	4
ENT 438	Pesticides in the Environment	3
ENT 440	Insect Identification	4
ENT 441	Insect Ecology	3
PLP 415	Plant Pathology	3
or SOIL 425	Microbial Ecology	
PLSC 102	The Science of Plants in Agriculture	3
PLSC 207	Introduction to Biotechnology	3
<del>PLSC 400</del>	<del>Seminar</del>	<del>1</del>
<a href="#">ENT 400</a>	<a href="#">Seminar</a>	<u>1</u>
<a href="#">SOIL 205</a>	<a href="#">The Soil Ecosystem</a>	<u>3</u>
<a href="#">SOIL 206</a>	<a href="#">The Soil Ecosystem Lab</a>	<u>1</u>
<a href="#">STAT 251</a>	<a href="#">Statistical Methods</a>	<u>3</u>
<a href="#">Select one of the following:</a>		<u>3</u>

<a href="#">ENGL 207</a>	<a href="#">Persuasive Writing</a>	
<a href="#">ENGL 313</a>	<a href="#">Business Writing</a>	
<a href="#">ENGL 316</a>	<a href="#">Environmental Writing</a>	
<a href="#">ENGL 317</a>	<a href="#">Technical Writing</a>	
<a href="#">ENGL 318</a>	<a href="#">Science Writing</a>	
<a href="#">Select one of the following:</a>		<a href="#">3-4</a>
<a href="#">MATH 143</a>	<a href="#">College Algebra</a>	
<a href="#">MATH 160</a>	<a href="#">Survey of Calculus</a>	
<a href="#">MATH 170</a>	<a href="#">Calculus I</a>	
<a href="#">Select one of the following:</a>		<a href="#">4</a>
<a href="#">PHYS 100</a>	<a href="#">Fundamentals of Physics</a>	
<a href="#">&amp; PHYS 100L</a>	<a href="#">&amp; Fundamentals of Physics Lab</a>	
<a href="#">PHYS 111</a>	<a href="#">General Physics I</a>	
<a href="#">&amp; PHYS 111L</a>	<a href="#">&amp; General Physics I Lab</a>	
Select 3 credits of Biotechnology electives		3
Select 5 credits of Entomology electives		5
Select <del>6</del> <a href="#">9</a> credits of Life Science electives		<del>6</del> <a href="#">9</a>
Select 4 credits of Mathematics electives		4
<del>Select 4 credits of Physics electives</del>		<del>4</del>
Select one of the following:		3-5
<del><a href="#">BIOL 154</a></del>	<del><a href="#">Introductory Microbiology</a></del>	
<del><a href="#">&amp; BIOL 155</a></del>	<del><a href="#">and Introductory Microbiology Laboratory</a></del>	
<a href="#">EPPN 154</a>	<a href="#">Microbiology &amp; the World Around Us</a>	
<a href="#">&amp; EPPN 155</a>	<a href="#">And Microbiology &amp; the World Around Us Lab</a>	
BIOL 250	General Microbiology	
<a href="#">&amp; BIOL 255</a>	and General Microbiology Lab	
BIOL 300	Survey of Biochemistry	
BIOL 380	Biochemistry I	
CHEM 253	Quantitative Analysis	
<a href="#">&amp; CHEM 254</a>	and Quantitative Analysis: Lab	
Select one of the following:		3-4
BIOL 310	Genetics	
<a href="#">&amp; BIOL 315</a>	<a href="#">And Genetics Lab</a>	
GENE 314	General Genetics	
<b>Total Hours</b>		<del>109-113</del> <a href="#">115-119</a>

### Courses to total 128 credits for this degree

**Rationale:** During the trifurcation the BS in Agricultural and Life Sciences was established. This proposed change accomplishes a modification to the BSAGLS that provides flexibility to the majors while maintaining the BSAGLS. There are minimal changes to the overall Entomology degree. In general, the courses that effectively supported the Entomology degree were moved

from the core into the Entomology degree section. There is no additional workload for the department.